

WHAT IS CLAIMED IS:

1. A method of recovering cellular functions in cells following injury, comprising the step of:

5 contacting said cells with ascorbic acid or a salt of ascorbic acid.

2. The method of claim 1, wherein said cellular
10 function is selected from the group consisting of proliferation, mitochondrial function, $\text{Na}^+\text{-K}^+\text{-ATPase}$ protein expression, $\text{Na}^+\text{-K}^+\text{-ATPase}$ protein activity, and active Na^+ transport.

15 3. The method of claim 1, wherein said ascorbic acid is L-ascorbic acid phosphate.

4. The method of claim 1, wherein the concentration
20 of said ascorbic acid is from about 0.05 mM to about 0.5 mM.

5. An ophthalmic composition comprising a therapeutically effective amount of ascorbic acid or a salt of ascorbic acid and an ophthalmically acceptable carrier.

5

6. The composition of claim 5, wherein the composition is in a form selected from the group consisting of aqueous eye drops, liposomes, microspheres, proteins, collagen and soft contact lenses.

10

7. A pharmaceutical composition in the form of an ointment, lotion, cream or spray, comprising a therapeutically effective amount of ascorbic acid or a salt of ascorbic acid and a topically acceptable carrier.

15

8. A pharmaceutical composition, comprising a therapeutically effective amount of ascorbic acid or a salt of ascorbic acid on a solid support, wherein said solid support comprises a dressing.

20

9. The pharmaceutical composition of claim 8, wherein said solid support comprises an adsorbent material.

5

10. The pharmaceutical composition of claim 9, wherein said adsorbent material is attached to an adhesive strip.

10

11. A method of recovering cellular functions following injury in an individual in need of such treatment, comprising the step of:

administering a therapeutically effective amount of ascorbic acid or a salt of ascorbic acid to said individual.

15

12. The method of claim 11, wherein said injury is selected from the group consisting of halogenated hydrocarbons-induced nephrotoxicity, ischemia- and drug-induced acute renal failure, and glomerulonephritis, and skin abrasions, cuts, and burns.

13. The method of claim 12, wherein said halogenated hydrocarbons is dichlorovinyl-L-cysteine.

5

14. The method of claim 12, wherein said cellular function is selected from the group consisting of proliferation, mitochondrial function, Na^+ - K^+ -ATPase protein expression, Na^+ - K^+ -ATPase protein activity, and active Na^+ transport.

10

15. A method of recovering cellular functions following injury to the eye of an individual in need of such treatment, comprising the step of:

15

administering the ophthalmic composition of claim 5 to said individual.

20

16. The method of claim 15, wherein said injury is selected from the group consisting of acute injury to the eye, eye diseases associated with the over production of collagen

(conjunctivitis, diabetes mellitus), eye disease associated with the under production of collagen (alkali burns, rheumatoid arthritis).

5 17. A product for delivery of a therapeutically effective amount of ascorbic acid comprising:

(A) a strip comprising:

(i) a flexible substrate sheet; and

10 (ii) a therapeutically effective amount of ascorbic acid deposited onto said substrate sheet.